SECOND FIVE-YEAR REVIEW REPORT
SMITHTOWN GROUNDWATER CONTAMINATION SUPERFUND SITE
SUFFOLK COUNTY, NEW YORK

Prepared by

U.S. Environmental Protection Agency
Region 2
New York, New York

June 2016

Approved by:

Walter E. Mugdan, Director
Emergency and Remedial Response Division

Date:

June 23, 2016

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Executive Summary

This is the second five-year review for the Smithtown Groundwater Contamination Superfund site located in Suffolk County, New York. The purpose of this five-year review is to review information to determine if the remedy is and will continue to be protective of human health and the environment. The triggering action for this policy five-year review is the completion date of the previous five-year review, September 29, 2011.

The second five-year review concludes that implemented remedy for the site is protective of human health and the environment.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site Name: Smithtown Groundwater Contamination Superfund Site		
EPA ID: NY0002318889		
Region: 2	**State:** NY	**City/County:** Smithtown, Suffolk County

SITE STATUS	
NPL Status: Final	
Multiple OUs? No	**Has the site achieved construction completion?** Yes

REVIEW STATUS
Lead agency: EPA ***[If "Other Federal Agency", enter Agency name]*:**
Author name (Federal or State Project Manager): Gloria M. Sosa
Author affiliation: EPA
Review period: 9/29/2011 - 6/13/2016
Date of site inspection: 4/25/2016
Type of review: Policy
Review number: 2
Triggering action date: 9/29/2011
Due date *(five years after triggering action date)*: 9/28/2016

Issues/Recommendations

OU(s) without Issues/Recommendations Identified in the Five-Year Review:
OU1

Protectiveness Statement(s)

Operable Unit:	*Protectiveness Determination:*	*Addendum Due Date (if applicable):*
OU1	Protective	

Protectiveness Statement: The implemented remedy for the site is protective of human health and the environment.

Sitewide Protectiveness Statement

Protectiveness Determination:	*Addendum Due Date (if applicable):*
Protective	

Protectiveness Statement:
The implemented remedy for the site is protective of human health and the environment.

Introduction

The purpose of a five-year review is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment and is functioning as intended by the decision documents. The methods, findings, and conclusions of reviews are documented in the five-year review. In addition, five-year review reports identify issues found during the review, if any, and document recommendations to address them.

This is the second five-year review for the Smithtown Groundwater Contamination Superfund site, located in Smithtown, Suffolk County, New York. This five-year review was conducted by the Environmental Protection Agency (EPA) Remedial Project Manager (RPM) Gloria M. Sosa. The review was conducted pursuant to Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. §9601 *et seq.* and 40 CFR 300.430(f)(4)(ii), and in accordance with the *Comprehensive Five-Year Review Guidance*, OSWER Directive 9355.7-03B-P (June 2001). This report will become part of the site file.

The triggering action for this policy review is the completion date of the previous five-year review, September 29, 2011. A five-year review is required at this site because hazardous substances, pollutants or contaminants will not remain at the site above levels that allow for unlimited and unrestricted use upon completion, but will take more than five years to complete. The site consists of one operable unit, which is addressed in this five-year review.

Site Chronology

See Table 1 for the site chronology.

Background

Site Location

The site includes an area that has contaminated groundwater within the Villages of Nissequogue, Head of the Harbor and the Hamlet of St. James, Town of Smithtown, Suffolk County, New York. The site is situated in an approximately four-square mile predominantly residential area bounded by Stony Brook Harbor and an east-west line defined by Spring Hollow Road to the north the Nissequogue River to the west and Edgewood Avenue and North Country Road (Route 25A) to the south, and Hitherbrook Road to the east. Figure 1 presents the site location.

Physical Characteristics

The site topography is complex, with elevations ranging from sea level near the surface water bodies, Stony Brook Harbor and the Nissequogue River, to more than 200 feet, above sea level. Prior to the discovery of the groundwater contamination, homes in this predominantly residential area primarily use private wells for potable drinking water and septic systems for sanitary wastewater disposal. Some business/retail development is located in St. James to the south/southeast.

Site Geology/Hydrogeology

The wells at the site are within the unconfined Upper Glacial/Magothy aquifer unit. The aquifer is approximately 500 feet thick; the depth to the water table ranges from less than 5 feet to 200 feet below ground surface (bgs). The groundwater flow direction is complex in the site vicinity. The regional flow is toward the north from the business/retail area towards the predominantly residential area; however, the two major bodies of water, the Nissequogue River and Stony Brook Harbor induce flow to the west and east, respectively.

Land and Resource Use

The site is located in a residential area covering portions of the Villages of Nissequogue and Head of the Harbor within the Town of Smithtown, just north of the Hamlet of St. James, Suffolk County, New York. The predominant land use within the boundaries of the site is residential (single family). The residential lot sizes are over one acre on average. A horse farm is located within the north-central portion of the site along Moriches Road. The Nature Conservancy - Long Island Chapter owns a parcel of property approximately 67 acres in size in the central portion of the site. Self-guided marked trails are available for hiking, bird watching, and other outdoor nature-related activities.

Prior to the discovery of contaminated groundwater, residents of both villages used private wells for both drinking and irrigation. Currently, the majority of the residences within the site are connected to the public-water supply. Water is provided by the Suffolk County Water Authority and the St. James Water Authority.

Limited commercial retail, office development (including gasoline stations and strip malls) and a high school are located south of the residential area. The more densely developed residential and commercial retail districts of St. James are located less than one-quarter mile from the site, south of the Port Jefferson Branch of the Long Island Railroad. Future use of the site is expected to remain unchanged.

History of Contamination

On October 9, 1997, EPA received a written request from the New York State Department of Environmental Conservation (NYSDEC) requesting assistance in funding alternative water supplies for residences affected by contaminated groundwater. Attached to NYSDEC's request for assistance was a private well sampling survey, prepared by the Suffolk County Department of Health Services (SCDHS), which presented drinking water results from 35 private wells in the area. Analytical data from this survey indicated that several wells were contaminated with volatile organic compounds (VOCs), primarily tetrachloroethylene (PCE). SCDHS conducted a private well survey in 1997. SCDHS collected samples from approximately 150 homes throughout the area of the site. Analytical results from these samples indicated that 23 residences were contaminated with PCE at concentrations exceeding the State and federal maximum contaminant level (MCL) of 5 micrograms per liter (µg/L). Four of these residences had PCE concentrations exceeding EPA's Removal Action Level (RAL) of 70 µg/L. As a follow-up to the SCDHS sampling, in April 1998, EPA collected 330 samples from 295 private wells to further delineate the extent of PCE contamination. Based on the SCDHS and EPA analytical data, a total of 35 residential wells were identified as contaminated with PCE (or its breakdown products) at concentrations above the MCLs. The RAL for PCE was exceeded in six homes. The SCDHS

advised all affected residents not to use the well water for drinking or cooking purposes and to limit exposure through direct contact.

SCDHS sampled 11 current and former commercial facilities located south-southeast of the contaminated wells from November 1997 through April 1998 to identify potential sources of the contaminated groundwater. These investigations included the installation and subsequent sampling of test wells in the area of these facilities. Each facility utilizes a private sanitary sewage disposal system consisting of septic tanks, cesspools/leaching pits, and/or other on-site wastewater disposal. Sample results showed detections of a number of VOCs, suggesting that several of the suspected source facilities were discharging hazardous wastes to the subsurface through their septic systems. Concentrations of PCE in liquid samples ranged from non-detectable levels to 65,000,000 µg/L. PCE in sludge samples ranged from non-detectable levels to 160,000 µg/L. At the direction of SCDHS, the septic systems were cleaned out subsequent to the 1997-1998 sampling. SCDHS issued letters to each property owner that clean outs were adequate and that no further action was necessary.

Initial Response

In April 1998, EPA began the delivery of bottled water on an emergency basis to the affected homes where the RAL was exceeded. In June 1998, EPA expanded its delivery of bottled water to all residences where the MCLs for PCE or its breakdown products were exceeded. On July 23, 1998, an EPA Action Memorandum was signed that authorized Removal Action activities to be conducted at the site. Removal activities were restricted to homes that exceeded EPA's MCLs. EPA provided the service connection to the public supply from the SCWA distribution system to the household water distribution system at residences where the MCL was exceeded and where public water was available. Existing wells were disconnected. At residences where the MCL was exceeded and public water was not available, EPA installed individual household granular activated carbon (GAC) treatment systems or upgraded the existing treatment systems installed independently by the residents.

In 1998, EPA collected samples from several hundred private wells in the Smithtown area. As a result of this sampling, EPA provided hookup to the public water supply or treatment at the tap for 39 residences with PCE levels in private wells above or equal to 5 µg/L.

On January 19, 1999, the site was placed on the National Priorities List (NPL). In 1999, EPA sent requests for information to the owner/operators of the 11 suspected source areas seeking, among other things, information regarding historical disposal practices at these locations. Despite the resulting documentary evidence collected by EPA and the data previously generated by the SCDHS, EPA's Remedial Investigation (RI) field work did not confirm that any of the suspected source areas was contributing to the groundwater contamination.

In the spring of 2003, initial groundwater screening using vertical profile wells (VPWs) was performed at the 11 locations of the potential source areas. Twenty-five VPW groundwater screening samples were collected. The groundwater MCL screening criteria for site-related chlorinated VOCs were exceeded at only one location at which a monitoring well was installed. Septic system sludge and wastewater samples were also collected. The resulting data indicated that waste handling practices were improved at the 11 facilities since septic systems were cleaned out in the late 1990s and that these facilities were not currently contributing contamination to the groundwater.

The inability to pinpoint the source(s) of contamination at this site is affected by factors which include the possibility that disposal occurred more than 30 years ago and may have involved a relatively small total volume (e.g., several drums or less); disposal may have occurred in relatively small volumes over extended time periods; the contamination has likely been subject to dispersion, dilution and volatilization; and the disposal more likely than not occurred in multiple locations (including hundreds of septic sources) spread over a significant land area with varied topography and geological strata.

Basis for Taking Action

Following the listing of the site on the NPL, EPA performed a RI at the site from 1999 through 2005. The results from the analysis of environmental samples taken during the RI indicated that the groundwater was contaminated with PCE, trichloroethylene (TCE) and arsenic. The baseline human health risk assessment concluded that an unacceptable risk existed for future residents' consumption of groundwater; this was primarily driven by arsenic, PCE and TCE concentrations in the groundwater.

A screening level ecological risk assessment was also conducted to determine if risks existed to ecological receptors in the Nissequogue River and Stony Brook Harbor. Results of the screening level ecological risk assessment process indicated that the potential exists for ecological risk at the Site resulting from exposure to chemicals detected in site sediment and surface water; however, these contaminants were metals and PAHs which were not contaminants found in the groundwater.

Remedial Actions

Remedy Selection

A ROD was issued by EPA in September 2005 documenting the selected remedial action for the site.

The following remedial action objectives for groundwater were established for the Site:

- Prevent or minimize potential current and future human exposures including ingestion and dermal contact with VOC-contaminated groundwater that exceeds Federal and State drinking water standards, and,
- Restore groundwater to levels which meet Federal and State drinking water standards within a reasonable time frame.

An RAO for surface water was also developed to verify that no significant impact on surface water quality will occur from VOC contamination reaching the Nissequogue River and Stony Brook Harbor.

The major components of the remedy include:

- Approximately 270 homes within the affected area of the site will be connected to either the Suffolk County Water Authority or St. James Water District for their future potable water needs. This action will provide the physical connection from the houses to the water mains near the houses. After hookup to the water mains, the residential wells will be properly

abandoned (in accordance with New York State requirements) to eliminate possible risk to human health.

- No active groundwater remedy is being utilized. However, aquifer restoration is anticipated to occur within a reasonable time frame based on natural processes such as dispersion, dilution and volatilization. Long-term monitoring to ensure aquifer restoration will include groundwater and surface water sampling. Surface water samples will be collected in select locations along the Nissequogue River and Stony Brook Harbor. Groundwater will be sampled from selected monitoring wells to monitor the contaminant concentrations and migration over time. Additional monitoring wells will be installed as necessary to allow for effective monitoring of the contamination.

- Institutional controls such as groundwater use restrictions (through well drilling permit restrictions) will be utilized to prevent future use of contaminated groundwater.

A review of site conditions will be conducted no less often than once every five years using data obtained through the groundwater sampling program. The site reviews will include an evaluation of the extent of contamination and an assessment of contamination migration and attenuation over time. The long-term monitoring program may be modified, if necessary, based on the monitoring results.

Remedy Implementation

Remedial construction activities commenced on September 15, 2005, when a Task Order was opened with EPA's removal contractor, WRS Infrastructure and Environment, Inc. (WRS). EPA and WRS mobilized at the site on November 15, 2005. The ROD estimated that there were 270 homes within the area of remediation. EPA subsequently determined that there were 692 residences within the remedial area. In addition, EPA determined that 581 of these residences were already connected to the public-water supply. This was accomplished through consultation with the SCWA, by confirmation through physical inspection (presence of water meter), by consultation with homeowners (either by telephone or in person) and through responses to EPA mailings to homeowners.

EPA provided lateral water lines and service connections to 79 homes within the remedial area. The lateral water lines and service connections were installed by subcontractors to WRS, including Suffolk Water Connections, We Dig Long Island and Asplundh. These water lines were installed either by directional drilling, air missile or trenching.

Polyvinyl chloride (PVC) pipe manufactured and designed for use in potable water systems was used from the water main to within fifteen (15) feet of the residence. Copper pipe was then utilized for the final 15 feet as is required by SCWA and joined to the PVC pipe. The pipe was installed at approximately 4.5 feet below grade. The pipe was at the minimum one inch in diameter. A pressure regulator was installed inside the residence to ensure there would be no damage caused by an increase in the water pressure.

EPA entered into a contract through WRS with SCWA to extend the water main on Smith Lane in order to connect several homes that were not serviced by the existing main. SCWA extended the existing main to the end of Smith Lane and WRS subcontracted the installation of the lateral water lines and service connections.

Most residences were connected to the public water supply provided by SCWA and just a few homes were connected to the St. James Water District. Thirty-two (32) residences declined to be connected by EPA to the public water supply. These residents informed EPA of their intent to decline either through a form supplied by EPA, by telephone or personal interview with EPA personnel. Residents declined to be connected to the public water supply for various reasons, including having a preference for well water. EPA issued a Preliminary Close-out Report that documented the completion of the residential hookups in September 2006 and the Remedial Action report was issued in September 2009.

Since 2006, several residents changed their opinions concerning using their wells as a water supply and requested hookups to the public-water supply. In addition, property ownership changed at several residences and some of these new owners requested a connection to the public-water supply. As a result, EPA has connected 10 additional residences to the public-water supply. As a result, 89 of the 111 eligible homes have been connected to date. If any of the remaining eligible homes request a connection in the future, EPA will consider such requests in light of the contaminant levels that remain in the aquifer at the time of the request.

Institutional Controls Implementation

Institutional controls for this site include continued reliance on existing SCDHS regulations that require new residences and businesses to hook up to public water supplies whenever public water mains are reasonably available. Where such mains are not available, the SCDHS regulations require proposed wells for new residences and businesses to be tested for water quality prior to use. For certain contaminant ranges, appropriate treatment is to be provided. Application of these regulations should minimize the potential for exposure to contaminated drinking water.

System Operations/Operation and Maintenance

A long-term groundwater and surface water monitoring program has been instituted to collect data on contaminant concentrations and movement at the site. Groundwater samples are collected from eleven existing monitoring wells and surface-water samples are collected from Stony Brook Harbor and the Nissequogue River. Sampling is conducted biannually and samples are analyzed for VOCs using low detection limit analytical methods.

Potential site impacts from climate change have been assessed, and the performance of the remedy is currently not at risk due to the expected effects of climate change in the region and near the site.

Progress Since Last Five-Year Review

Protectiveness statement from 2011 FYR: The remedy at the Smithtown Groundwater Contamination Superfund site is expected to be protective upon completion, and in the interim, exposure pathways that could result in unacceptable risks are being controlled.

Recommendations identified in 2011 FYR: There were no recommendations or follow-up actions identified from the 2011 FYR.

Five-Year Review Process

Administrative Components

The Five-Year Review Team consisted of: Gloria M. Sosa (Remedial Project Manager), Katherine Mishkin (Hydrogeologist), Nicholas Mazziotta (Human-Health Risk Assessor), Mindy Pensak (Ecological Risk Assessor), Cecelia Echols (Community Involvement Coordinator), and, Pietro Mannino (Western New York Remediation Section Chief).

Community Involvement

On November 19, 2015, EPA Region 2 posted a notice on its website indicating that it would be reviewing site cleanups and remedies at 32 Superfund sites and four federal facilities in New York and New Jersey, including the Smithtown Groundwater Contamination site. The announcement can be found at the following web address: http://www2.epa.gov/sites/production/files/2015-11/documents/fy_16_fyr_public_website_summary.pdf.

In early May, a public notice indicating that EPA was conducting a five-year review was posted on the website at the Smithtown Town Hall, 99 Main Street, Smithtown, NY 11787. Once the five-year review is completed, the results will be made at the local site repository, which is located at the Smithtown Library, Smithtown Main Building, One North Country Road, Smithtown, New York 11787.

Document Review

The documents, data and information which were reviewed in completing this five-year review are summarized in Table 3.

Data Review

EPA began conducting groundwater monitoring at the site in April 2009. Since 2009, EPA's Division of Environmental Science and Assessment (DESA) has been collecting samples from about 10 monitoring wells and two surface waters on a biennial basis (2009, 2011, 2013, and 2015). The monitoring well network consists of: MW-4I, MW-4S, MW-4D, MW-6I, MW-6S, MW-5I, MW-1S, MW-1I, MW-E, and MW-C (Figure 2). Monitoring wells are screened in the Upper Glacier and Magothy Aquifers and water level data indicate some variations in groundwater flow patterns specifically in the direction of surface water bodies. The predominant direction of groundwater flow is to the north/northwest direction, toward Long Island Sound. On a smaller scale, groundwater flow is complex because of the influence of surface water bodies, such as Nissequogue River and Stony Brook Harbor (Figure 4). Since these two surface water bodies act as groundwater discharge points, two samples are collected from each location (NR-1, NR-2, SBH-1, SBH-2).

The contaminants of concern at the site are PCE and its degradation products. For this reason, since 2009 samples have been strictly analyzed for trace level VOCs. Groundwater and surface water data collected in 2015 indicates that VOCs were not detected at levels exceeding their respective New York State standards or Federal MCLs. For PCE, both the NYSDEC standard and Federal MCL is 5 ug/L. PCE concentrations found to be consistently below the cleanup level of 5 ug/L and/or non-detect during each monitoring event since 2009 include: MW-4S, MW-4I,

MW-5I, MW-6I, MW-C, MW-E, MW1I, and MW1S. PCE concentrations in MW-5S, MW-6S, and MW-4D were previously exceeding 5 ug/L, but have shown decreasing concentration trends since 2009, and each monitoring well showed concentrations below 5 ug/L in 2015. Figure 3 depicts PCE trends in select wells where concentrations were previously exceeding the cleanup level of 5 ug/L.

During the previous five-year review, concentrations of *cis*-1,2-DCE were found to exceed the New York State standard of 5 ug/L in 2009 in one well. *Cis*-1,2-DCE concentrations were detected above 5 ug/L in MW-1S in May and November of 2009 (5.6 ug/L and 6.4 ug/L, respectively). Since 2009, *cis*-1,2-DCE concentrations have been below 5 ug/L and MW-1S most recently showed non-detect levels of the constituent. No other degradation product of PCE has shown exceedences of the New York State standards nor federal MCLs during this five-year review period.

Surface water data from Stony Brook Harbor and Nissequogue River has consistently shown no detections of contaminants above the reporting levels.

Site Inspection

The inspection of the site was conducted on April 25, 2016. In attendance was Gloria M. Sosa, EPA. The purpose of the inspection was to assess the protectiveness of the remedy. No issues or adverse conditions were observed during the site inspection.

Interviews

No interviews were conducted during the review period.

Institutional Controls Verification

The intent of the institutional controls is to reduce potential future exposure to contaminants by restricting use of potentially contaminated groundwater. Institutional controls for this site include continued reliance on existing SCDHS regulations that require new residences and businesses to hook up to public water supplies whenever public water mains are reasonably available. Where such mains are not available, the SCDHS regulations require proposed wells for new residences and businesses to be tested for water quality prior to use. For certain contaminant ranges, appropriate treatment is to be provided. Application of these regulations should minimize the potential for exposure to contaminated drinking water.

Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

The residents which were affected by the groundwater contamination were provided with water lines and service connections in order to insure protection of public health. Appropriate institutional controls were also put in place to restrict future access to contaminated ground water. These actions have ensured that the remedy is currently preventing any complete pathway for exposure.

The 2015 monitoring data results indicate that PCE, which is the principle contaminant of concern, was below New York State standards in all monitoring wells. This marks the first monitoring event where all VOCs have been below their respective groundwater criteria.

Monitoring wells where there were previous PCE exceedences of the groundwater cleanup level, specifically, MW-5S, MW-6S, and MW-4D all show declining concentrations of PCE since the previous five-year review in 2009. These monitoring wells are situated in the northeast portion of the site, and are sidegradient or upgradient of the remaining wells in the network. No other VOCs were detected at levels exceeding the New York State standards during any of the three monitoring events during this five-year review period.

The most recent round of data from 2015 indicate that the aquifer has been restored to drinking water conditions; however, given that this has been demonstrated in one monitoring event thus far, additional monitoring is warranted to confirm that the groundwater criteria continue to be met.

Surface water data indicate that groundwater contaminant concentrations discharging to surface water do not have an adverse impact on the surrounding water bodies.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy still valid?

The remedial action objectives for the site are to protect human health from exposure (via ingestion and dermal contact) to VOCs in groundwater at concentrations in excess of New York State standards and Federal MCLs, restore the aquifer to meet these State and Federal standards in a reasonable time frame, and verify that no significant impact on the surface water quality will occur from VOC contamination reaching the Nissequogue River and the Stony Brook Harbor. These remedial action objectives are still valid.

The cleanup values that were chosen for the groundwater were the New York State standards and Federal MCLs. These levels are still valid.

An exposure pathway that was not considered in the original assessment is vapor intrusion into indoor air. However, since the VOC concentrations in the groundwater are significantly less than appropriate vapor intrusion screening values, the potential for soil vapor intrusion issues related to this site is extremely unlikely.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No other information has come to light that would call into question the protectiveness of the remedy. There have been no changes at the site as the result of natural disasters or climate change impacts.

Technical Assessment Summary

Based upon the results of the five-year review, it has been concluded that:

- Groundwater is approaching or has achieved groundwater cleanup levels for all contaminants of concern in existing site monitoring wells;
- Additional groundwater data will be collected to conduct verify that the groundwater has attained cleanup levels;
- Surface water has consistently remained non-detect;

- The remedy has prevented residents from drinking contaminated groundwater; and
- No additional measures are needed to protect public health.

Issues, Recommendations and Follow-Up Actions

There are no recommendations or follow-up actions resulting from this five-year review.

Protectiveness Statement

The remedy at the Smithtown Groundwater Contamination Superfund site is protective of human health and the environment.

Next Review

The next five-year review report for the Smithtown Groundwater Contamination Superfund site is required five years from the completion date of this review.

Attachments

Figure 1	Site Location Map
Figure 2	Groundwater Monitoring Well Location Map
Figure 3	PCE trends in select wells where concentrations were previously exceeding the MCL of 5 ug/L
Figure 4	Groundwater Flow
Table 1	Site Chronology
Table 2	Documents, Data and Information Reviewed in Completing the Second Five-Year Review
Table 3	Groundwater Sampling PCE Results

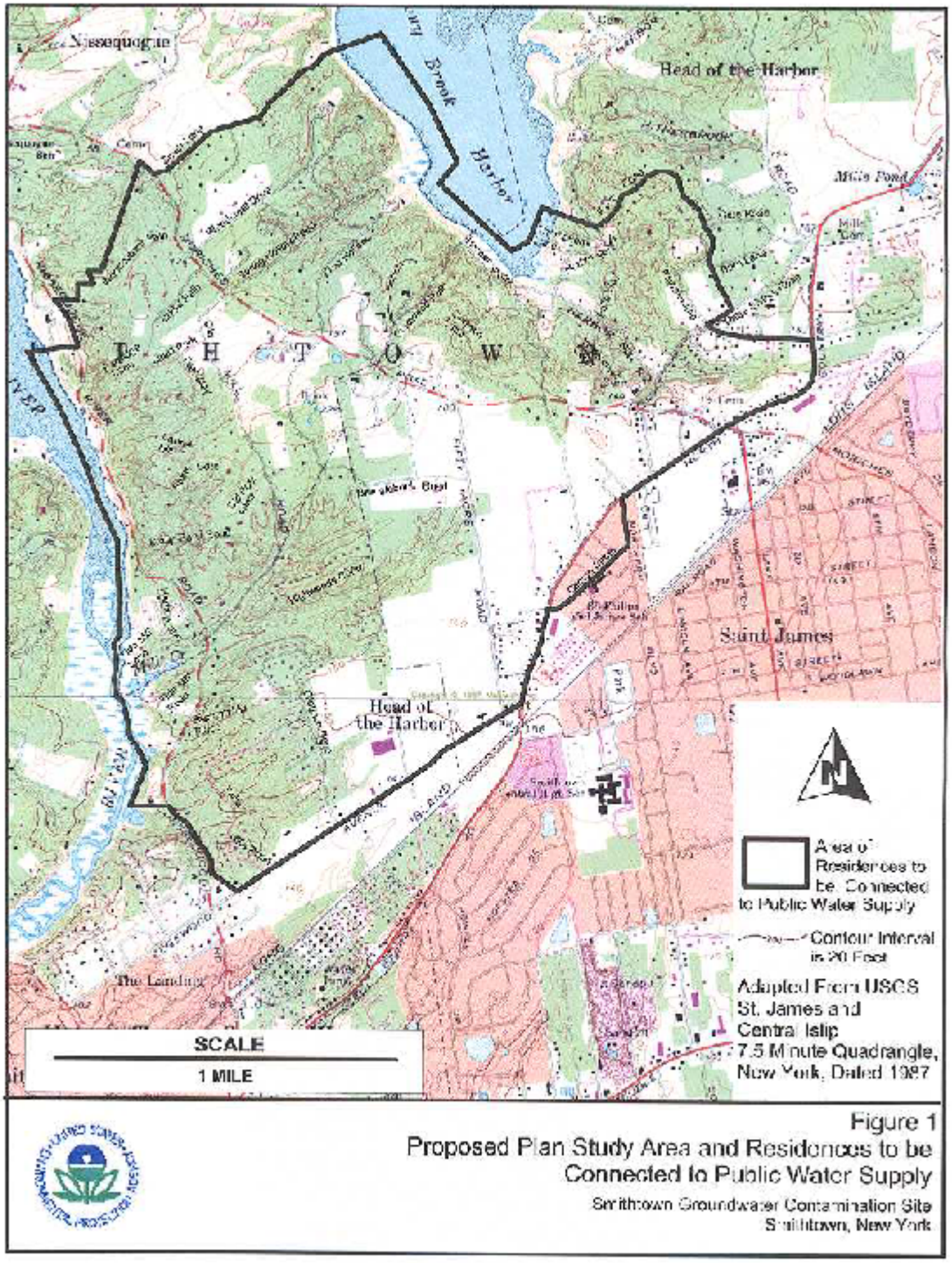

Figure 1—Site Location Map

Figure 2—Groundwater Monitoring Well Locations

Figure 3—PCE trends in select wells where concentrations were previously exceeding the MCL of 5 ug/L

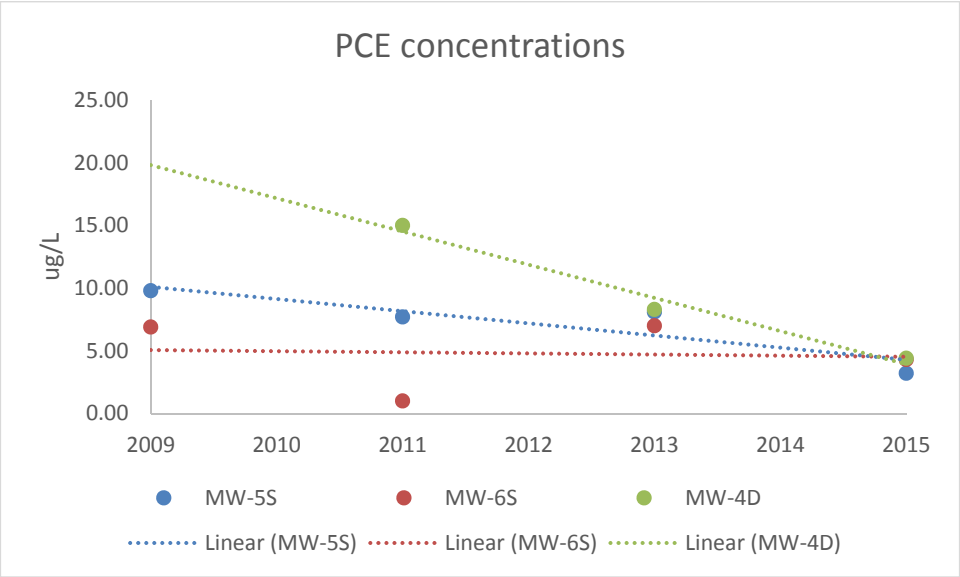

Table 1: Site Chronology

EVENT	DATE
SCDHS conducts private well survey	1997
NYSDEC requests assistance in funding alternate-water supply	October 1997
EPA begins removal action	April 1998
Site placed on NPL	January 1999
RI/FS activities initiated by EPA	March 2000
RI/FS documents released by EPA	September 2004
ROD issued by EPA	September 2004
Remedial construction activities begin	September 2005
Remedial construction completed	September 2006
Final construction site inspection conducted by EPA	September 2006
EPA issues PCOR	September 2006
EPA samples groundwater monitoring wells	May 2009
EPA samples groundwater monitoring wells	November 2009
EPA samples groundwater monitoring wells	May 2011
EPA conducts first five-year review	September 2011
EPA samples groundwater monitoring wells	May 2013
EPA samples groundwater monitoring wells	June 2015

Table 2: Documents, Data and Information Reviewed in Completing the Second Five-Year Review

DOCUMENT	DATE
RI/FS	August 2004
Record of Decision	September 2004
Preliminary Close-Out Report	September 2006
Interim Remedial Action Report	September 2009
DESA Monitoring Report	June 2011
First Five-Year Review	September 2011
DESA Monitoring Report	May 2013
DESA Monitoring Report	June 2015

Table 3: Smithtown Groundwater Sampling PCE Results

all concentrations are in µg/L

Monitoring Wells	**2009** *µg/L*	**2011** *µg/L*	**2013** *µg/L*	**2015** *µg/L*
MW–4S	ND	ND	ND	ND
MW–4D	no sample	15	8.3	4.4
MW–4I	ND	0.85	0.61	0.37
MW–5S	9.8 µg/L	7.7	8.1	3.2
MW–5I	ND	ND	0.57	0.34
MW–6I	ND	ND	ND	ND
MW–6S	6.9 µg/L	1	7.0	4.3
MW–C	ND	ND	ND	ND
MW–E	ND	ND	ND	0.38
MW–1I	ND	ND	ND	ND
MW–1S	ND	0.9	ND	0.22

ND=not detected